CLAIMS

I claim:

1. A burp gas filtering and deodorizing device, comprising:

a substantially elongated, tubular, generally cylindrical pen-shaped housing having an upper end and a lower end and defining a central axis;

said upper end of the pen-shaped housing defining a gas intake port;

said lower end of the pen-shaped housing defining at least one gas exhaust port; and

a gas filtration and deodorization media disposed within said pen-shaped housing.

2. The burp gas filtering and deodorizing device according to claim 1, further comprising:

an ink cartridge axially disposed within said pen-shaped housing; and

a writing tip attached to said lower end of the pen-shaped body, said ink cartridge being attached to said writing tip;

said ink cartridge and said pen-shaped housing defining an annular space therebetween;

said gas filtration and deodorization media being disposed substantially within said annular space.

3. The burp gas filtering and deodorizing device according to claim 1, further comprising:

a generally tubular pen cap removably attached to said lower end of the pen-shaped housing having an open end for receiving said pen-shaped housing and a closed end;

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said pen cap defining a cap port in the closed end of said pen cap.

4. The burp gas filtering and deodorizing device according to claim 2, wherein said filtration and deodorization media is a fibrous material.

5. The burp gas filtering and deodorizing device according to claim 2, further comprising an upper end cap located at said upper end of said pen-shaped housing, said upper end cap defining said gas intake port.

6. The burp gas filtering and deodorizing device according to claim 5, said filtration and deodorization media being a tubular filter element disposed in an annular cavity formed between said pen-shaped wall and said ink cartridge, said tubular filter defining an unfiltered gas cavity within said tubular filter and a filtered gas cavity in the annulus between said tubular filter and said pen-shaped housing, said device further comprising means for fixedly supporting said tubular filter within said pen-shaped housing such that said unfiltered gas cavity is in fluid communication with said gas intake port and said filtered gas cavity is in fluid communication with said at least one gas exhaust port.

7. The burp gas filtering and deodorizing device according to claim 6, wherein said upper end cap is threadingly engaged with said upper end of said pen-shaped housing so as to provide for its removable engagement therewith, and said tubular filter is removable and replaceable upon removal of said upper end cap.

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8. The burp gas filtering and deodorizing device according to claim 7, wherein said means for fixedly supporting said tubular filter within said pen-shaped housing comprises an upper gasket and a lower gasket, said upper gasket being in the general shape of a washer and sealingly engaged between said upper end cap and said tubular filter, said upper gasket providing for fluid communication between said gas intake port and said unfiltered gas cavity, said lower gasket providing for fluid communication between said filtered gas cavity and said at least one gas outlet port.

9. The burp gas filtering and deodorizing device according to claim 8, wherein said means for fixedly supporting said tubular filter further comprises a plurality of spaced vanes extending lengthwise along the inner wall of said pen-shaped housing and extending radially inward therefrom within said annular filtered gas cavity so as to engage said tubular filter.

10. The burp gas filtering and deodorizing device according to claim 9, wherein said lower gasket is in the general shape of a washer having lower supporting means at said lower end of said pen-shaped housing, said lower gasket sealingly engaging the lower end of said tubular filter and said ink cartridge.

11. The burp gas filtering and deodorizing device according to claim 10, wherein said lower supporting means for said lower gasket comprises vane gasket supports extending radially inward from the respective lower ends of said spaced vanes.

12. The burp gas filtering and deodorizing device according to claim 11, wherein said lower end of said pen-shaped housing

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defines a plurality of spaced outlet gas ports radially spaced around said lower end of said pen-shaped housing and longitudinally spaced between said vane gasket supports and said tip.

13. The burp gas filtering and deodorizing device according to claim 11, wherein said lower supporting means for said lower gasket is a washer and a coil spring extending between said tip and said washer, said coil spring surrounding said ink cartridge.

14. The burp gas filtering and deodorizing device according to claim 13, wherein said lower end of said pen-shaped housing defines a plurality of spaced outlet gas ports radially spaced around said lower end of said pen-shaped housing and longitudinally spaced between said washer and said tip.

15. The burp gas filtering and deodorizing device according to claim 6, wherein said tubular filter element is self-supporting.

16. The burp gas filtering and deodorizing device according to claim 6, said tubular filter comprising an inner perforated wall and an outer perforated outer wall extending between an upper wall and a lower wall, and a filter media disposed between said inner wall and said outer wall and said end walls.

17. The burp gas filtering and deodorizing device according to claim 16, said filter media being granular in form.

18. The burp gas filtering and deodorizing device according to claim 17, said filter media being activated charcoal or chemisorbant media.

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19. The burp gas filtering device according to claim 16, said filter media being layers of a nano woven membrane.

20. The burp gas filtering device according to claim 16, said filter media being selected from the group comprising a disperse, fibrous material or a nano non-woven fibrous material.

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